

CLAIMS

1. A sample presentation apparatus for use in analysing pharmaceutical samples, comprising means for feeding said samples sequentially through at least one predetermined analysing position (6) wherein at least one measuring radiation beam irradiates said sample (14) when it is located in said analysing position characterised in that there is at least one two-piece means (9, 39) for temporarily fixing each sample at said analysing position (6), said two-piece means comprising a first and a second sample holding part arranged at said analysing position in which said two-piece means is adapted to move between
 - 10 - an open position wherein a sample is provided for analysis, and
 - a closed fixing position wherein a sample is analysed.
- 15 2. The apparatus according to claim 1, wherein said first (9a, 39a) and second (9b, 39b) sample holding parts are located on opposite sides of the sample (14) in the analysing position (6).
3. The apparatus according to claim 1, wherein none of said first (9a, 39a) and second (9b, 39b) sample holding parts are in contact with the sample (14) in the open position.
- 20 4. The apparatus according to any of claims 1-3, wherein said first (9a, 39a) and second (9b, 39b) sample holding parts define a first and second aperture (20), respectively.
5. The apparatus according to claim 4, wherein said first and second aperture (20) together define an effective optical aperture (22) in the closed fixing position.
- 25 6. The apparatus according to any of the preceding claims wherein said first (39a) and second (39b) sample holding parts each define a first and second compartment which together defines a predetermined volume.

7. The apparatus according to any of claims 1 to 6, wherein said means for feeding samples sequentially through the analysing position (6) comprises at least one pre-alignment means (13) for receiving and holding a sample (14) during the transport thereof to the analysing position.

8. The apparatus according to claim 7, wherein said pre-alignment means (13) comprises an elastically compressible member (15) such that the sample (14) is flexible engaged in the pre-alignment means.

9. The apparatus according to claim 8, wherein said elastically compressible member (15) is an elastically compressible ring having an inner dimension in an uncompressed state which is slightly smaller than an outer dimension of the sample.

10. The apparatus according to claim 7, wherein the pre-alignment means (13) comprises a spring-loaded arm (31) for embracing the sample (14) in the pre-alignment means.

15. 11. The apparatus according to claim 10, wherein the spring-loaded arm (31) and a part of the feeding means are provided with an indentation (32) for receiving a sample (14).

12. The apparatus according to any of claims 1 to 11, wherein said means for feeding samples sequentially through an analysing position (6) is represented by a rotating feeder wheel (3) comprising at least one pre-alignment means (13) for receiving at least one sample (14).

20. 13. The apparatus according to claim 12, wherein said rotating feeder wheel (3) is connected to a sample receiver (2) providing the feeder wheel with samples (14) to be analysed.

14. The apparatus according to claim 13, wherein said sample receiver (2) is a transport line (2a) connected on-line to a tabletting process for providing the pre-alignment means (13) with samples (14).

5 15. The apparatus according to claim 13, wherein said sample receiver (2) is an at-line sample receiver (2b) for providing the pre-alignment means (13) with samples (14) from a batch source.

10 16. The apparatus according to claim 15, wherein said at-line sample receiver (2b) comprises a conical rotating part (42) defining the bottom of an open vessel (43) with cylindrical geometry upon which conical part samples fall down to be sequentially aligned before entering the pre-alignments means in the feeder wheel (3).

15 17. The apparatus according to any of claims 1-15, wherein said sample (14) is a solid dosage form such as a tablet, a pellet or a capsule.

18. A method for presenting pharmaceutical samples to a sample presentation apparatus comprising the following steps:

- feeding a sample sequentially through said sample presentation apparatus (1) comprising at least one predetermined analysing position (6);
- temporarily fixing said sample (14) at the analysing position in a closed fixing position by means of a two-piece fixing means (9, 39) comprising a first and second sample holding part;
- moving said first and second sample holding parts to an open position to allow the sample to be transported to an ejecting position (7).

25 19. A method according to claim 18 wherein the sample (14) is irradiated with at least one measuring radiation beam (16) during said temporarily fixing in the analysing position (6) to perform a measurement on the sample.

20. A method according to claim 19 wherein said measurement is an optical measurement.

21. A method according to claim 20 wherein said optical measurement is carried out by means of near-infrared (NIR) spectrometry and/or a spectrometric method based on 5 Raman scattering and/or a spectrometric method based on absorption in the UV, visible, or infra-red (IR) wavelength region, or luminescence, such as fluorescence spectrometry, or based on X-ray.

10 22. A method according to claim 21 wherein said optical measurement is carried out by means of near-infrared (NIR) spectrometric imaging and/or a spectrometric imaging method based on Raman scattering and/or a spectrometric imaging method based on absorption in the UV, visible, or infra-red (IR) wavelength region, or luminescence, such as fluorescence spectrometric imaging, or based on X-ray.

15 23. A method according to claim 19 wherein the irradiation of the sample (14) is carried out by microwaves.

20 24. Use of a sample presentation apparatus (1) for analysing a pharmaceutical product wherein the sample presentation apparatus is constructed according to any of claims 1- 17.